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C-122 file

MAY 18 1972

NEW MEXICO CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

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Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 5-20-72	NOV 1 1972
Company: Dorchester Exploration, Inc.		Connection: None			O. C. C. ARTESIA, OFFICE
Pool: Anderson (Penn)		Formation: Morrow			0
Completion Date: 3-30-72	Total Depth: 11,060	Plug Back TD: 11,025	Elevation: 3662 Gr		Farm or Lease Name: Anderson Federal
Csg. Size: 5 1/2	Wt.: 17.0 & 15.5	d:	Set At: 11,059	Perforations: From 10,844 To 10,880	Well No.: 1
Tbg. Size: 2 3/8 EUE	Wt.: 4.71	d: 1.995	Set At: 10,560	Perforations: From To	Unit: 0 Sec.: 7 Twp.: 17S Rge.: 30E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 10,560		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 156° @ 10,862	Mean Annual Temp. °F: 70	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10,862	10,862	.640	0	0	0	X		

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2	x	8/64	1637		69					1 Hr
1.	2	x	14/64	883		70					1 Hr
2.	2	x	20/64	278		77					1 Hr
3.	2	x	28/64	115		79					1 Hr
4.											
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	.2648		1650.2	.9915	1.250	1.159	628
2.	.8393		896.2	.9905	1.250	1.089	1014
3.	6.473		291.2	.9840	1.250	1.027	1524
4.	13.00		128.2	.9822	1.250	1.011	2069
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	2.46	529	1.42	.745
2.	1.34	530	1.42	.843
3.	.43	537	1.44	.949
4.	.19	539	1.45	.979
5.				

Gas Liquid Hydrocarbon Ratio: not measured Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: not measured Deg.
Specific Gravity Separator Gas: .640 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 670 P.S.I.A. P.S.I.A.
Critical Temperature: 372 R R

P_c 2304.2 P_c^2 5309

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1780.2	3169	2140
2		1018.2	1037	4272
3		411.2	169	5140
4		323.2	104	5205
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{5309}{5205}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.02037$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2111$

Absolute Open Flow: 2111 Mcfd @ 15.025 | Angle of Slope θ: 45° | Slope, n: 1.00

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W. M. Cates	H. L. Hagler	

West Texas Engineering Service, Inc.